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(FILE 'HOME' ENTERED AT 10:21:16 ON 01 APR 2003)

FILE 'CAPLUS' ENTERED AT 10:21:56 ON 01 APR 2003

L1 2654656 S PREVENT? OR AVOID? OR PRECLUD? OR PROHIBIT? OR REDUC? OR ELIM
L2 1071543 S CORROSION? OR DECAY? OR RUST? OR DETERIORAT? OR DECOMPOS? OR
L3 90872 S CMP OR CHEMICAL()MECHANICAL() (POLISH? OR PLANAR?) OR POLISH?
L4 26201 S (METAL OR AL OR CU OR ALUMINUM OR COPPER) (3N) WIRE?
L5 11166 S (DUMMY OR DUMMIES OR FINE OR MAIN) (3N) (LINE OR LINES OR PATTE
L6 2 S L1 AND L2 AND L3 AND L4 AND L5
L7 26 S L1 AND L2 AND L3 AND (L4 OR L5)
L8 7 S L1 AND L2 AND L3 AND L5
L9 5 S L8 NOT L6
L10 19 S L7 NOT L8

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=> d bib ab 16 1-2

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS
AN 2002:487985 CAPLUS
DN 137:55777
TI Semiconductor device capable of preventing corrosion
of metal wires from CMP (chemical
mechanical polishing) process
IN Kim, Hyung-Jun
PA S. Korea
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002079517	A1	20020627	US 2001-15757	20011217
PRAI	KR 2000-80891	A	20001222		

AB The invention relates to a semiconductor device comprising a plurality of metal wire patterns, each of which includes main fine line patterns, main pad patterns and dummy fine line patterns, wherein an area ratio of the dummy fine line patterns, which are connected to the main pad patterns, to the entire wire patterns is less than 1% and lower than a ratio of the main fine line patterns to the entire wire patter

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

AN 2002:256920 CAPLUS

DN 137:38029

TI Control of pattern specific **corrosion** during aluminum
chemical mechanical polishing

AU Kim, Hyungjun; Kwon, Panki; Lee, Sukjae; Kim, Hyung-Hwan; Lee, Sang-Ick;
Song, Seo-Young; Nam, Chul-Woo

CS Memory R&D Division, Hynix Semiconductor Inc., Ichon, S. Korea

SO Materials Research Society Symposium Proceedings (2001),
671(Cheical-Mechanical Polishing 2001--Advances and Future Challenges),
M6.5/1-M6.5/6

CODEN: MRSPDH; ISSN: 0272-9172

PB Materials Research Society

DT Journal

LA English

AB A pattern specific **corrosion** of **aluminum wires**
was found during **aluminum chem. mech. polishing**
process. This paper presents and discusses the particular pattern
dependency of the **corrosion** behavior and effective control
methods in order to **reduce** the **corrosion**. An aluminum
single damascene structure on silicon dioxide thin film was prepd. and the
effects of process variables and pattern configuration on
corrosion behavior were extensively explored. The
corrosion behavior was quant. analyzed using sheet resistance of
corroded line. It was demonstrated that **corrosion** of
aluminum wire was assocd. with cleaning media and
pattern configuration. The area ratio between sub-micron size line and
pads was the most important factors to det. the **corrosion**
behavior. A post cleaning chem. including **corrosion** inhibitor
could not **prevent** the **corrosion** perfectly. It was
found that sacrificial **dummy lines** could
reduce the aluminum **corrosion**, which suggests that the
aluminum **corrosion** could be controlled by the structural
consideration in aluminum damascene.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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